RDA linked data stuff

Gordon Dunsire, RDA Technical Team Liaison Officer
Presented at RDA Linked Data Data Forum
June 24, 2019, Washington, D.C.
Overview

RDA Reference and GitHub releases

Short-cuts

Data inheritance

Implementation scenarios
Be notified of new releases
Create your free GitHub account today to subscribe to this repository for new releases and build software alongside 36 million developers.

Sign up

Release 3.2.0

GordonDunsire released this on 24 Apr · 1 commit to master since this release

This is a release to support the 3R Project. The content is mostly stable.

The "contributor" short-cut relationships between Manifestation and Agent have been amended to agents who create expressions in place of agents who create works.

This release includes partial translations.
Short-cuts

An element/property that represents a linked chain of two or more other elements

- Manifestation
  - has work manifested
  - has expression manifested
- Expression
  - has work expressed
- Work

Expression not recorded

The only short-cut in the original Toolkit
New short-cuts

New Toolkit short-cuts simplify aggregates

Manifestation has contributor agent to aggregate

Expression has creator agent of expression

Expression has expression manifested

Agent

Aggregated expression not recorded
Element hierarchies

All elements belong to a well-defined and well-formed semantic hierarchy

13 x 13 high-level relationship matrix
13 entities linked to 13 entities
Full matrix hierarchy under construction

Semantics support “smart” machine-processing of RDA data
### Data inheritance

<table>
<thead>
<tr>
<th>appellation of work</th>
<th>“This presentation”</th>
</tr>
</thead>
<tbody>
<tr>
<td>related agent of work</td>
<td>Gordon Dunsire</td>
</tr>
<tr>
<td>&gt; related person of work</td>
<td>Gordon Dunsire</td>
</tr>
<tr>
<td>&gt;&gt; creator person of work</td>
<td>Gordon Dunsire</td>
</tr>
<tr>
<td>&gt;&gt;&gt; author person of work</td>
<td><strong>Gordon Dunsire</strong></td>
</tr>
<tr>
<td>&gt;&gt;&gt;&gt;&gt; screenwriter person</td>
<td></td>
</tr>
</tbody>
</table>

Data is automatically ‘inherited’ up a hierarchy through semantic inferencing.
## Appellation inheritance

<table>
<thead>
<tr>
<th>Person</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>appellation of person</td>
<td>Gordon Dunsire</td>
</tr>
<tr>
<td>&gt; name of person</td>
<td>Gordon Dunsire</td>
</tr>
<tr>
<td>&gt;&gt; preferred name of person</td>
<td><strong>Gordon Dunsire</strong></td>
</tr>
<tr>
<td>appellation of person</td>
<td>Dunsire, Gordon</td>
</tr>
<tr>
<td>&gt; access point for person</td>
<td>Dunsire, Gordon</td>
</tr>
<tr>
<td>&gt;&gt; authorized access point for person</td>
<td><strong>Dunsire, Gordon</strong></td>
</tr>
<tr>
<td>appellation of person</td>
<td>nb2001072552</td>
</tr>
<tr>
<td>&gt; identifier for person</td>
<td>nb2001072552</td>
</tr>
</tbody>
</table>
Database implementation scenarios

0: Linked data (RDF)
1: Relational
2: Bib/authority
3: Flat file

Review and re-cast in light of new RDA Toolkit
Scenario: Linked data

Discrete entities (and vocabularies) linked by IRI

- agent
- place
- expression
- nomen
- work
- timespan
- manifestation
- item
Scenario: Relational data

Discrete entities linked by (local) identifier

- agent
- place
- expression
- manifestation
- item
- nomen
- work
- timespan
Scenario: Bib/authority

Compound entities linked by authorized access point

work
expression
manifestation
Item
nomen

agent
nomen

place
nomen

timespan
nomen
Scenario: Flat file

Compound entities with no links

- work
- expression
- manifestation
- item
- nomen
- agent
- place
- timespan

agent
nomen
Thank you!

Questions? Discussion!